RTF report generator

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DB-Main Manual Series

RTF REPORT GENERATOR

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Chapter 1

Introduction

This program generates a RTF report for a database schema created into the DB-MAIN tool.

A report is a structured document containing all the information of a database schema. These information concern the entity types, relationship types, attributes, roles, groups, collections, meta-properties, notes, descriptions, ...

The reports have the Microsoft RTF (*Rich Text Format*) format. This format enables the report loading into a word processor with an attractive appearance.

To use this RTF report generator, the user must be familiar with the DB-MAIN case tools. He must be able to create projects, build schemas, insert semantical annotations or meta-property values on each schema objects, ...

This document is going to explain the generator functionalities.

Chapter 2

RTF generator functionalities

The RTF generator has been developped into the Voyager 2 language specific to DB-MAIN case tools. The Voyager 2 program can be executed into DB-MAIN.

Let’s first explain how to execute the Voyager 2 program before describing the execution of the RTF generator.

2.1 Voyager 2 program execution

The executable file programs written in Voyager 2 have an "oxo" extension. You must select the function "Execute Voyager ..." in the "File" menu in DB-MAIN to execute an "oxo" file (figure 2.1). The file containing the RTF report generation program is called "Rtf.oxo". You can also select the function "RTF ..." in the "File/Report" menu in DB-MAIN to execute automatically the file "Rtf.oxo".

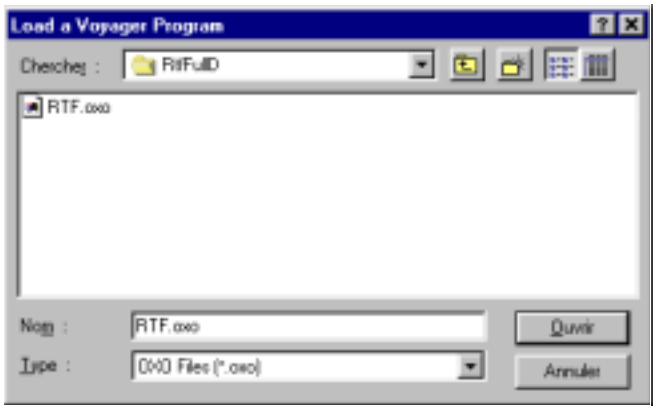

Figure 2.1 - Voyager 2 program loading.

2.2 RTF generator execution

The RTF report generation with our program is divided into three stages:

1. *Report content definition*: the user can choose the information that must appear into the report. With the extended generator, this definition can be saved into a style file.
2. *Report generation*: the program uses the style file to generate the RTF report.
3. *Report layout*: the user can upgrade the report into a word processor. For example, table of contents, figures, index, ... can be added to the original report.

Each stage is detailed below.

2.2.1 Report content definition

First, the program launches the graphical interface to customize the format of the RTF report. This allows to generate two kind of reports: **light** or **extended**. This section examines each kind.

a) Light RTF report generation

When the user chooses the **Light** panel (see figure 2.2), he can generate light RTF reports. In this panel, the user can choose:

- the *font type* of the RTF report: Courier or Times New Roman;
- the *size font*: 10 or 12;
- the *page layout*: Portrait or Landscape;
- the *detail level* for the schema information:
  - *Compact*: list of collections, entity types and relationship types of the schema;
  - *Standard*: list of collections (with their entity types), entity types (with their IS-A relations, subtypes, attributes, groups, processing units), relationship types (with their roles, attributes, groups, processing units and roles), all the notes of the schema;
  - *Extended*: same as the standard detail level with all the descriptions of each object and the roles playing by each entity type.
- the *number of lines displaying for each semantic description*: any number or all the lines (only available for the extended detail level);
- the *number of lines displaying for each technical description*: any number or all the lines (only available for the extended detail level).

A light report looks like the three textual view (compact, standard or extended following the chosen detail level) of a schema in the DB-MAIN CASE tools.

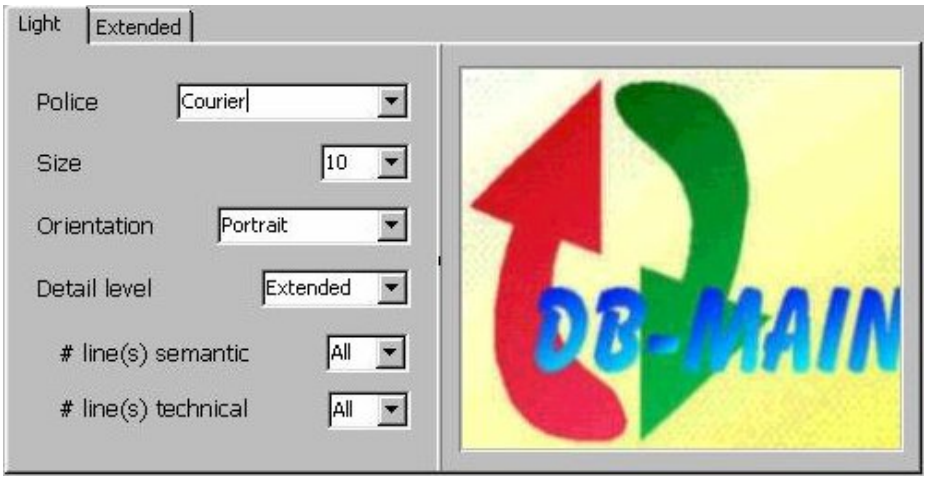

Figure 2.2 - The panel for the light report generation

b) Extended RTF report generation

When the user chooses the **Extended** panel (see figure 2.3), he has two ways to realize the customization of the extended generation. First, he can control his own preferences and save them into a style file (*Save* button in the figure 2.3). Then, the user can load the preferences from an existing style file previously saved (*Load* button in the figure 2.3). To load the style file, the standard loading file dialog box is used (see figure 2.4). The style file contains the information about the object types to be integrated into a report and its format. The style files have a ".ptr" extension.

For the extended generation, the user can choose:

- the *font type* of the RTF report: Courier or Times New Roman;
- the *size font*: 10 or 12;
- the *page layout*: Portrait or Landscape;
- the *detail level* for the descriptions: with or without the semantic and technical descriptions;

- the *number of lines displaying for each semantic description*: any number or all the lines (only available for the detail level with descriptions);
- the *number of lines displaying for each technical description*: any number or all the lines (only available for the detail level with descriptions);
- the *page header*: the title of each page of the report;
- the *objects to print*: the user can choose the object types that must be included into the final RTF report i.e. the entity types, the relationship types, the collections, the attributes, the groups, the processing units, the notes, the meta-properties (definitions and values) and the user-defined domains.

An extended report presents the main objects of a schema (collections, entity types and relationship types) and the chosen table of their properties like attributes, groups, roles, processing units, note, descriptions or méta-properties. This kind of report is more accurate and complete than the light version but it's therefore more important and less clear.

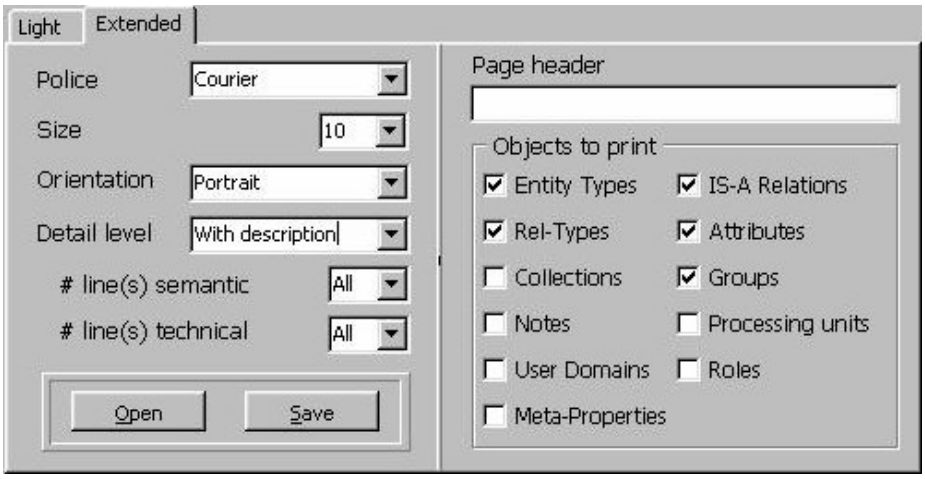

Figure 2.3 - The panel for the light report generation.

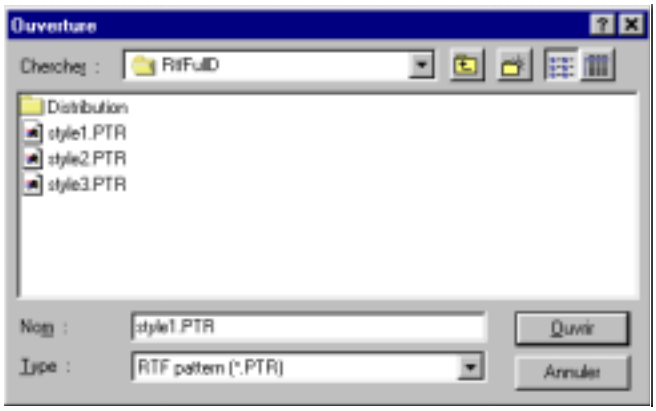

Figure 2.4 - Style file loading.

2.2.2 Report generation

The user must specify the destination file for the generated RTF report (by default: *c:\Report.rtf*). The Destination button opens the standard Save as dialog box. The *Quit* button quits the program without generating a report. The **Generate** button quits the program and generates the RTF report into the destination file The About button gives some information about the program.

Figure 2.5 - The report generation panel.

2.2.3 Report layout

The generator builds a RTF report with the chosen layout. But the options proposed in this tool are limited and often insufficient. To ameliorate the report presentation, the user can edit the RTF report in an appropriate word processor. The extended reports also contain the codes to generate automatically an index and a table of contents. The user can insert these tables into his report from the used word processor. The index table entries are the entity type names, relationship type, attribute and role names. The index makes the search of the main objects of a schema easy.

Chapter 3

Conclusion

The RTF generator builds reports for the selected object types belonging to a DB-MAIN schema. It allows to show the information in a structured document.

This programs may still include undetected logical and technical bugs. Please be kind to report as precisely as possible any abnormal behaviour. We will try to fix it as soon as possible. Thanks for your collaboration.

For further information, please contact:

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